

TRANSPARENT UNIFORM MATERIAL OF ORGANIC-INORGANIC COMPLEX AND ITS PRODUCTION**Publication number:** JP3212451**Publication date:** 1991-09-18**Inventor:** SAEGUSA TAKEO; NAKAJO YOSHIKI; KURE SHIGEO**Applicant:** SAEGUSA TAKEO**Classification:****- international:** C01B33/155; C08G73/00; C08G73/02; C08K3/22; C08K3/36; C08L77/00; C08L77/12; C08L79/00; C08L79/02; C08L83/02; C08L85/00; C01B33/00; C08G73/00; C08K3/00; C08L77/00; C08L79/00; C08L83/00; C08L85/00; (IPC1-7): C01B33/155; C08G73/00; C08K3/22; C08K3/36; C08L77/00**- european:****Application number:** JP19900006305 19900117**Priority number(s):** JP19900006305 19900117**[Report a data error here](#)****Abstract of JP3212451**

PURPOSE: To obtain a complex transparent and uniform material comprising three-dimensional fine network of metal oxide and an amide bonding-containing non reactive polymer uniformly dispersible in said network by reacting a hydrolysis-polymerizable metal compound in the presence of an amide bonding-containing non-reactive polymer and subjecting to gelation. **CONSTITUTION:** The objective transparent uniform material of organic-inorganic complex is composed of (A) a three-dimensional fine network structural material of metal oxide (preferably silica and/or alumina) and (B) an amide bonding-containing non-reactive polymer, e.g. polyoxazoline-based polymer or vinylpyrrolidone-based polymer, preferably having solubility in water, uniformly dispersible in the component A. Said material is preferably produced by dissolving the component B and a hydrolysis-polymerizable metal compound (tetraalkoxysilane, etc., is preferable in a case of silica as a generating metal oxide) in a solvent such as alcohol to obtain an uniform solution, dropping hydrochloric acid, etc., to resultant solution and subjecting to a hydrolysis-polymerization reaction and gelation with stirring.

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